

Product datasheet for **RR214225**

Gpi (NM_207592) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gpi (NM_207592) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gpi
Synonyms:	Amf; Gpi1; Nlk; Pgi; Phi
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RR214225 representing NM_207592
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTGCGCTCACCCGGAACCCGGAGTCCAGAAGCTGCTGGAGTGGCACCCGGGCGAACCTCGCCAACC
 TCAAGCTGCGCGAACTTTTTGAGGCAGATCCGGAGCGCTTCAACCACTTCAGCTTGAACCTCAACACCAA
 CCATGGACATATTCTGTTGGATTACTCCAAGAACCTTGTGAACAAGGAGGTGTTGCACATGCTGGTGGAC
 CTGGCCAAGTCCAGAGCGTGGAGGCCGCGCGGACAACATGTTCAAGTGGTTTGAAGATCAACTCCACCG
 AGGACCCGGCGGTGCTGCACGTGGCCCTTCGGAACCGGTCCAACAGATCCATCATGATGGACGGCAAAGA
 CGTGATGCCAGAGGTCAACAAGGTGCTGGACAAGATGAAGTCTTCTGCCAGCGGTCCGGAGTGGTAC
 TGGAAAGGTACACCGCAAAGCTATCACGGACATCATCAACATCGGCATTGGAGGCTCCGACCTGGGAC
 CCCTCATGGTACTGAAGCTCTAAGCCTTACTCTAAGGAGGTCCAGAGTCTGGTTTGTCTCCAACAT
 TGATGGGACCCACATTGCCAAAACATTGGCCAACCTGAACCTGAGTCTTCCCTTTTATAATCGCTCC
 AAGACCTTCAACCCAGGAGACCATCACCAACGAGAGACTGCCAAAGAGTGGTTTCTCCAAGCTGCGA
 AGGATCCGTCTGCAGTTGCAAAGCACTTGTGGCCCTGTCTACGAACACGGACAAAGTGAAGGAGTTTGG
 AATTGACCCTAAAAACATGTTTCGAGTCTGGGATTGGGTAGTGGCCGCTACTCGCTGTGGTTCAGCCATT
 GGACTCTCCATCGCACTGCATGTGGTTTTGACCACTTTGAACAGCTGCTGTCCGGGGCTCACTGGATGG
 ACCAGCACTTCAAGACGCCCCCTGGATAAGAATGCCCCGCTCTGCTGGCTCTCTGGGCATCTGGTA
 TATCAACTTCTACGGCTGTGAGACCCACCCATGCTGCCCTATGACCAGTACATGCACCGCTTTGCTGCC
 TATTTCCAGCAGGGTGACATGGAATCCAATGAAAAGTACATCACCAAGTCTGGAGCCCGGTTGACTACC
 AGACAGCCCCATTGTGTGGGGGAGCCAGGACCAACGGTCAACATGCATTCTACCAGCTTATCCACCA
 AGGCACCAAGATGATACCCTGTGATTTCCCTCATCCCTGTTCCAGACCCAGCACCCCATACGGAATGGTCTG
 CATCACAAGATCCTCTGGCCAACCTTCTGGCCAGACTGAGGCCTGATGAAGGGGAAGTCGCCAGAAG
 AGGCCAGGAAGGAGTCCAGGCTGCCGAAAGAGCCAGAAGAACTGGAGAACTCTTGCCACACAAGGT
 CTTTGAAGGAAACCGCCGACCAACTCAATTGTGTTTACCAAGCTAACACCCTTCATTCTGGGAGCACTG
 ATTGCCATGTATGAGCACAAGATCTTCTGTTTACGGCATCATCTGGGACATCAACAGCTTCGACCAGTGGG
 GAGTGGAGCTGGGAAGCAGCTGGCCAAGAAAATTGAGCCAGAGCTGGACGGCAGCTCTGCCGTAACCTC
 CCATGACTCTCCACTAATGGACTGATCGGCTTCAAGCTGCAGCGCGACACCAAAATAGAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR214225 representing NM_207592
 Red=Cloning site Green=Tags(s)

MAALTRNPEFQKLEWHRANSANLKLRELFEADPERFNHFSLNLNTNHGHILLDYSKNLVNKEVLHMLVD
 LAKSRGVEAARDNMFSGLKINSTEDRAVLHVALRNRNRSIMMDGKDVMPVKNVLDKMKSFQVRVSGD
 WKGYTGAITDIINIGIGSDLGPLMVTEALPKPYSKGGPRVWFVSNIDGTHIAKLANLNPESSLFIAS
 KTFTTQETITNAETAKEWFLQAAKDPSAVAKHFVALSTNTDKVKEFGIDPKNMFEFWDWVGGRYLSWAI
 GLSIALHVGFDFEQLLSGAHWMDQHFMTPLDKNAPVLLALLGIWYINFGCETHAMPLPYDQYMHFAA
 YFQQGDMESNGKYITKSGARVDYQTGPIVWGEPTNGQHAFYQLIHQGTKMIPCDFLIPVQTQHPIRNGL
 HHKILLANFLAQTEALMKGKSPEEARKELQAAGKSPEELEKLLPHKVFEGNRPTNSIVFTKLTPTLILGAL
 IAMYEHIKIFVQGIWDINSFDQWGVELGKQLAKKIEPELDGSSAVTSHDSSTNGLIGFIKLRDTRKID

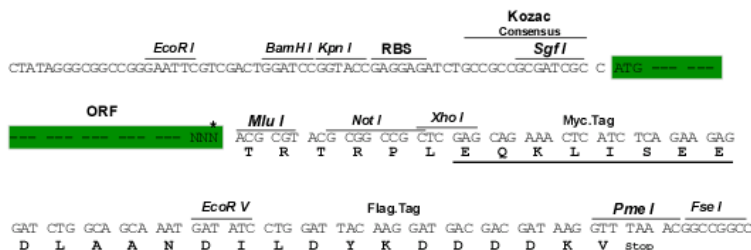
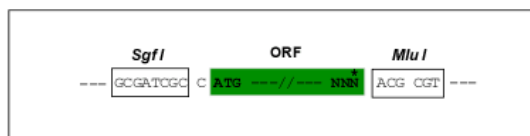
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_207592

ORF Size: 1674 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_207592.1](#), [NP_997475.1](#)
RefSeq Size: 2130 bp

RefSeq ORF: 1677 bp

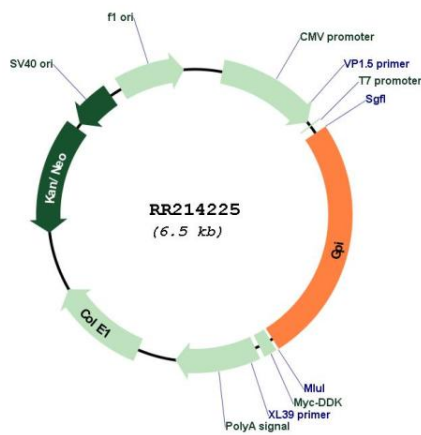
Locus ID: 292804

UniProt ID: [Q6P6V0](#)

Cytogenetics: 1q21
MW: 62.8 kDa
Gene Summary:

This gene encodes a member of the glucose phosphate isomerase protein family. A similar protein in human and mouse has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. In the cytoplasm, the gene product functions as a glycolytic enzyme (glucose-6-phosphate isomerase) that interconverts glucose-6-phosphate and fructose-6-phosphate. Extracellularly, the protein (also referred to as neuroleukin) functions as a neurotrophic factor that promotes survival of skeletal motor neurons and sensory neurons, and as a lymphokine that induces immunoglobulin secretion. The protein is also referred to as autocrine motility factor based on an additional function as a tumor-secreted cytokine and angiogenic factor. [provided by RefSeq, Jan 2014]

Product images:



Circular map for RR214225